

Training is the means by which an employer ensures that employees have the knowledge and skills they need to do their jobs correctly and safely. After employees have received initial training, acquired the basic knowledge, and perfected their operating skills, the employer may rely on refresher training to reinforce or improve the employee's knowledge of the basic training material; to impart new information; to teach material in a new manner; or simply to maintain an acceptable level of awareness of workplace conditions and operating hazards. In general, OSHA guidelines recommend new employees be trained prior to initial assignment about hazardous operations and substances to which they will be exposed. Employees should also be trained whenever assigned new work tasks, tools, equipment, machines or vehicles; and whenever an employee demonstrates unsafe job performance. There are over 100 OSHA standards that go beyond recommended guidelines by specifying what training is required and its frequency, and new and newly assigned employees may be required to work under the close supervision of a designated person until the employee demonstrates to the employer the ability to safely perform the new duties independently. Additionally, generic information and training such as commercially off-the-shelf training often is not sufficient and OSHA requires it to be supplemented with site specific policies, programs and other information.

OSHA's General Duty Clause (Section 5(a)(1)) covers recognized hazards for which OSHA does not have standards.

“SEC. 5. Duties (a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;”

When there is no standard OSHA requires the employer under the General Duty Clause to identify hazards, i.e., through inspections and analysis of recurring accidents, to take corrective actions to include training to prevent recurrence of such accidents. For example, OSHA recognizes ergonomics as a hazardous safety issue. Attempts have been unsuccessful to publish an OSHA ergonomics standard so OSHA can and has used the General Duty Clause to cite lack of ergonomically safe work practices and training. Another example is hazard of new work processes like nanotechnology that takes time to develop an OSHA standard.

OSHA requires the employer to provide safety training for each employee, including supervisors, at no cost to the employee.

See - <https://www.osha.gov/Publications/osha2254.pdf>

NEW EMPLOYEE SAFETY TRAINING is required by:

OSHA 29 CFR 1960.59

“(a) Each agency shall provide appropriate safety and health training for employees including specialized job safety and health training appropriate to the work performed by the employee, for example: Clerical; printing; welding; crane operation; chemical analysis, and computer operations. Such training also shall inform employees of the agency occupational safety and health program, with emphasis on their rights and responsibilities.

(b) Occupational safety and health training for employees of the agency who are representatives of employee groups, such as labor organizations which are recognized by the agency, shall include both introductory and specialized courses and materials that will enable such groups to function appropriately in ensuring safe and healthful working conditions and practices in the workplace and enable them to effectively assist in conducting workplace safety and health inspections. Nothing in this paragraph shall be construed to alter training provisions provided by law, Executive Order, or collective bargaining arrangements.”

See - https://www.osha.gov/SLTC/etools/safetyhealth/mod4_factsheets_training.html

New employees need to be trained not only to do the job, but also to recognize, understand, and avoid potential hazards to themselves and others in their immediate work area and elsewhere in the workplace. Contract workers also need training to recognize your workplace's hazards or potential hazards.

FIRE PREVENTION, EMERGENCY ACTION PLAN training is required by both OSHA and the International Fire Code.

OSHA 29 CFR 1910.38 - Emergency action plans.

“(e) **Training**. An employer must designate and train employees to assist in a safe and orderly evacuation of other employees.

(f) **Review of emergency action plan**. An employer must review the emergency action plan with each employee covered by the plan:

- (1) When the plan is developed or the employee is assigned initially to a job;
- (2) When the employee's responsibilities under the plan change; and
- (3) When the plan is changed.”

International Fire Code (IFC 2012) Chapter 4 - Emergency Planning and Preparedness

“401.2 Approval.

Where required by this code, fire safety plans, emergency procedures and employee training programs shall be *approved* by the *fire code official*.

SECTION 404 FIRE SAFETY AND EVACUATION PLANS

404.1 General.

Fire safety, evacuation and lockdown plans and associated drills shall comply with the requirements of Sections 404.2 through 404.5.1.

404.2 Where required.

An *approved* fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.

1. **Group A**, other than Group A occupancies used exclusively for purposes of religious worship that have an *occupant load* less than 2,000.
2. **Group B** buildings having an *occupant load* of 500 or more persons or more than 100 persons above or below the lowest *level of exit discharge*.
10. **High-rise buildings**.
14. Underground buildings.
15. Buildings with an atrium and having an occupancy in Group A, E or M.

SECTION 406 EMPLOYEE TRAINING AND RESPONSE PROCEDURES

406.1 General.

Employees in the occupancies listed in Section 404.2 shall be trained in the fire emergency procedures described in their fire evacuation and fire safety plans. Training shall be based on these plans and as described in Section 404.3.

406.2 Frequency.

Employees shall receive training in the contents of fire safety and evacuation plans and their

duties as part of **new employee orientation** and at least annually thereafter. Records shall be kept and made available to the *fire code official* upon request.

406.3 Employee training program.

Employees shall be trained in fire prevention, evacuation and fire safety in accordance with Sections 406.3.1 through 406.3.4.

406.3.1 Fire prevention training.

Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be **instructed** in the proper procedures for preventing fires in the conduct of their assigned duties.

406.3.2 Evacuation training.

Employees shall be **familiarized** with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation.

406.3.3 Emergency lockdown training.

Where a facility has a lockdown plan, employees shall be **trained** on their assigned duties and procedures in the event of an emergency lockdown.

406.3.4 Fire safety training.

Employees assigned fire-fighting duties shall be **trained** to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.”

HAZARD COMMUNICATION (HAZCOM) training is required by:

OSHA 29 CFR 1910.1200 - Hazard Communication.

“(a)(1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and **employee training**.

1910.1200(a)(2)

This occupational safety and health standard is intended to address comprehensively the issue of classifying the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legislative or regulatory enactments of a state, or political subdivision of a state, pertaining to this subject. Classifying the potential hazards of chemicals and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of safety data sheets to employees and downstream employers; and development and implementation of **employee training** programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

1910.1200(b)(1)

This section requires chemical manufacturers or importers to classify the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and **training**. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and **communicating information to their workers**.)

1910.1200(e)(1)

Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, safety data sheets, and employee information and **training** will be met

1910.1200(h) Employee information and training.

(1) Employers shall provide employees with effective information and **training** on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area.

Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets.

(2) *Information.* Employees shall be informed of:

- (i) The requirements of this section;
- (ii) Any operations in their work area where hazardous chemicals are present; and,
- (iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets required by this section.

1910.1200(h)(3) Training. Employee training shall include at least:

- (i) Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
- (ii) The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area;
- (iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,
- (iv) The details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.”

NOTE: See effective completion date for training employees on new label elements and safety data sheet format (December 1, 2013) - <https://www.osha.gov/Publications/OSHA3642.pdf>

IFC (2012) Section 407

407.2 Material Safety Data Sheets.

Material Safety Data Sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where *approved*, shall be permitted to be readily retrievable by electronic access.